

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 :  C11D 3/22, 3/04	A1	(11) International Publication Number: <b>WO 00/42144</b>  (43) International Publication Date: 20 July 2000 (20.07.00)
(21) International Application Number: PCT/US99/00145  (22) International Filing Date: 13 January 1999 (13.01.99)  (71) Applicant ( <i>for all designated States except US</i> ): THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US).  (72) Inventors; and  (75) Inventors/Applicants ( <i>for US only</i> ): <u>BABA</u> , Hajime [JP/JP]; Living Fukaekitamachi B-2, 10-12, Fukaekita-machi, Higashinada-ku, Kobe 658-0013 (JP). <u>MURATA</u> , Susumu [JP/US]; 9574 Wabash Way, West Chester, OH 45069 (US). <u>WANG</u> , Jiping [CN/US]; 6546 Glenarbor Drive, West Chester, OH 45069 (US).  (74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217-1087 (US).	(81) Designated States: AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	Published <i>With international search report.</i>

(54) Title: DETERGENT COMPOSITIONS HAVING A CELLULOSE POLYMER

(57) Abstract

The present invention relates to a laundry detergent composition comprising an anionically modified cellulose (AMC); and a cationic metal ion. The molar ratio of the anionically modified group of the AMC to the cationic metal ion is preferably from about 50:1 to about 1:50. The laundry detergent composition containing such materials maintain a good fabric appearance, such as better pill/fuzz prevention and color maintenance.